

**The development of WEB-based CAD framework for design of complex technical systems
(Project of The Science and Technology Centre in Ukraine (STCU))**

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The aim of project is providing of complex computer-aided design of complex technical systems, including electronic, pneumatic, mechanical, hydraulic and other components. The system is realized in the Internet sphere, and allows joining of work of different groups of specialists for solving tasks at different design stages.

Use of distributed design systems by specialists of large and small enterprises will permit to raise the reliability of performing of design objects at expense of possibility of use of arbitrary nonlinear functions which describe the objects, finding optimal parameters of object components and possible ranges of these parameters' values.

All these works were carried on the ALLTED (ALL Technology Designer) which is Ukrainian original software system for the simulation, analysis, optimization and design of nonlinear dynamic systems of any type and size: electrical, mechanical, hydraulic, pneumatic, thermal, electromagnetic, etc. or there mixed combinations. It is applying to robotics, numerical control machines tools, aircraft and automotive industries, heavy equipment and test equipment, agricultural and other applications, where different drives, transmissions, control units, valves, mechatronics, etc. are used. ALLTED system testing was held together with foreign partners by solving testing tasks, written in Munich, on server situated in Kyiv, with the following analysis of results received in Munich via Internet. Testing confirmed the workability of ALLTED system, which provides reliable distant design of complex technical objects.